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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,518	12/19/2001	David L. Gilmore	OTD-030348-US	6324
7590 04/17/2006				
Cooper Cameron Corporation P. O. Box 1212 Houston, TX 77251-2211			EXAMINER MILLER, WILLIAM L	
			ART UNIT	PAPER NUMBER
			3677	

DATE MAILED: 04/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/025,518

Applicant(s)

GILMORE, DAVID L.

Examiner

William L. Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 3-5 and 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 6-17, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I, Figs. 1-3, 5-7, and 9-12, in the reply filed on 02-10-2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 3-5 and 18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the tubular member (outer barrel) supporting the seal must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
4. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

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application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

5. Claims 1, 2, and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 1 is rejected as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The unclaimed inlet 82 is essential to enable a force to be applied to the seal through the tubular member to activate the seal.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 12 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by the admitted prior art (hereinafter "APA").

9. The APA (as discussed in the "Background of the Invention" and as shown in the lower half of Fig. 1 as a known seal design K) discloses a seal for a telescoping joint comprising: first 24 and second (not shown) nested tubular members (inner and outer barrels, respectively)

slidingly mounted with respect to each other and defining an annular space therebetween; at least one nitrile rubber seal 10 supported by the second member and sealingly spanning the annular space; and the seal having a longitudinal axis and opposed ends retained in a recess of the second member via projections 40 and 42 at the opposing seal ends which engage a depression in opposing rings 34 and 36, respectively, of the second member as shown in Fig. 1.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1, 2, 8-10, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over the APA in view of Chaplain (US#3909018).

12. Regarding claims 1 and 8, the APA seal sealingly spans the annular space when activated by a force (pressure) applied thereto through the second member at inlet 20. Further, the seal is compressed to the second member in a direction “substantially” aligned with its longitudinal axis via tightening nut 48 to stud 46 to move ring 34 onto the seal.

13. Regarding claims 1, 2, and 8, the APA seal is not compressed solely by an interference fit of the seal into the second member. However, compression of a seal solely via an interference fit with its supporting member is known as Chaplain discloses a seal assembly for a telescoping joint wherein seal 4 is supported by outer tubular member 1 in an interference fit which directly results in the compression of the seal (col. 2, line 67, to col. 3, line 9) thereby effectively holding the seal in position in the outer tubular member. Therefore, as taught by Chaplain, it would have

been obvious to one of ordinary skill in the art at the time the invention was made to modify the APA such that seal compression resulted solely by an interference fit of the seal into the second member thereby enhancing the securement of the seal to the second member.

14. Regarding claims 8-10, and as previously discussed, the APA seal includes a projection 40 and 42 at each end which engages a depression in rings 34 and 36, respectively, of the second member as shown in Fig. 1. The depression is longer than the projection in a direction perpendicular to the longitudinal axis, while the projection is being viewed as a U shape.

15. Regarding claim 19, and as previously discussed, the APA seal is nitrile rubber.

16. Claims 6, 7, 14, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the APA in view of Chaplain, and further in view of Gallagher (US#5833245).

17. Regarding claims 6, 14, and 17, and as discussed previously, the APA seal is not compressed upon assembly with the second member by an interference fit of the seal into the second member. However, compression of a seal upon assembly with its supporting member via an interference fit with its supporting member is known as Chaplain discloses a seal assembly for a telescoping joint wherein seal 4 is supported by outer tubular member 1 in an interference fit which directly results in the compression of the seal (col. 2, line 67, to col. 3, line 9) thereby effectively holding the seal in position in the outer tubular member. Therefore, as taught by Chaplain, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the APA such that seal compression resulted from an interference fit of the seal into the second member thereby enhancing the securement of the seal to the second member.

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18. Regarding claim 6, although the APA upper and lower ends of the seal define sealing surfaces, at least one of the ends is not beveled with respect to the longitudinal axis. However, it is known to utilize lead-in bevels at a seal end to provide damage resistant ease of assembly with mating members as taught by Gallagher (abstract last paragraph, see elements 21 and 31).

Therefore, as taught by Gallagher, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the APA such that at least one of the sealing surfaces ends was beveled to provide damage resistant ease of assembly with the first member.

19. Regarding claim 7, the bevel angle taught by Gallagher is being viewed as the broadly claimed at least “about” 15 degrees.

20. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over the APA in view of Chaplain, and further in view of Fontenot (US#5184681).

21. As discussed previously, the APA seal is not compressed upon assembly with the second member by an interference fit of the seal into the second member. However, compression of a seal upon assembly with its supporting member via an interference fit with its supporting member is known as Chaplain discloses a seal assembly for a telescoping joint wherein seal 4 is supported by outer tubular member 1 in an interference fit which directly results in the compression of the seal (col. 2, line 67, to col. 3, line 9) thereby effectively holding the seal in position in the outer tubular member. Therefore, as taught by Chaplain, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the APA such that seal compression resulted from an interference fit of the seal into the second member thereby enhancing the securement of the seal to the second member.

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22. The APA fails to disclose the second member including a passage to allow lubricant to be directed from outside the annular space to a sealing face on the seal in the annular space.

However, Fontenot teaches a seal assembly for a telescoping joint wherein first member 14 includes a passage 84 through portions 82,83 thereof to allow a lubricant to be directed from outside of the annular space between the first and second 12 members to a sealing face 70 of the seal 58 in the annular space thereby enabling a reduction in wear and frictional resistance between the telescoping members. Therefore, as taught by Fontenot, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the APA such that the second member included a passage to allow lubricant to be directed from outside the annular space to a sealing face on the seal in the annular space thereby enabling a reduction in wear and frictional resistance between the telescoping members.

23. Claims 13, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the APA in view of Gallagher.

24. Regarding claims 13 and 16, and as previously discussed, although the APA upper and lower ends of the seal define sealing surfaces, at least one of the ends is not beveled with respect to the longitudinal axis. However, it is known to utilize lead-in bevels at a seal end to provide damage resistant ease of assembly with mating members as taught by Gallagher (abstract last paragraph, see elements 21 and 31). Therefore, as taught by Gallagher, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the APA such that at least one of the sealing surfaces ends was beveled to provide damage resistant ease of assembly with the first member.

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25. Regarding claim 15, Gallagher teaches the ends are integrally beveled without any cantilevered component.

Response to Arguments

26. Applicant's arguments in response dated 09-19-2005 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William L. Miller whose telephone number is (571) 272-7068. The examiner can normally be reached on Tuesday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on (571) 272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WLM

William L. Miller
Primary Examiner
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